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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/808,956

03/25/2004

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EXAMINER

PATEL, VISHAL A

ART UNIT

PAPER NUMBER

3673

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/808,956

Applicant(s)

ARMOUR ET AL.

Examiner

Vishal Patel

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-24 is/are pending in the application.
- 4a) Of the above claim(s) 4,5 and 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,3,6-13 and 19-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 21-24, 2, 3, 7, 8, 9, 10, 11, 12, 13, 19-20 rejected under 35 U.S.C. 102(b) as being anticipated by DE 2643769 (referred to as DE '769).

DE '769 discloses a lip seal having a sealing lip (7) and a shield (6), the sealing lip and the shield are coextensive, the shield and the sealing lip having ends (ends near 8), the ends of the sealing lip and the shield are closed together (ends are closed to form a nozzle configuration), a passage (passage that introduces fluid from annular chamber 14 to space 10) permitting to inject fluid under pressure to a space formed between the sealing lip and the shield lip, the sealing lip and the shield formed of first and second resilient members, the shield is flexible so as to be deformable by the pressure of the fluid (that is the case since the sealing lip and the shield are formed from resilient members), the shield covering the sealing lip except for the lip end (this is the case since the shield only covers an end of the lip facing 3), the shield terminating radially short of the lip end (this is the case since the shield 6 is on top of the sealing lip 7), the first and second resilient members are annular (6 and 7 are annular), the lip seal having an outer diameter body portion from which the lip and the shield extend radially inward (the body that is mounted in housing 3), the body portion is adapted for retention within a housing of a bore for a shaft (intended use, the body is capable of being mounted in a housing), the passage (the

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passage) is arranged to admit fluid between the shield and a groove portion (groove that forms 10) portion of the sealing lip, the passage comprises at least one radially extending portion (radially extending port from 14 that communicates with the space 10) through which the fluid is injected, the passage is arranged to admit fluid between the shield and a groove portion of the sealing lip and extends between the first and second annular members (passage extending in the body portion that has the first and second annular members), the shield has a shield lip (lip of 6 near 8), the sealing and shield lips being normally closed together, the passage permits injection of fluid between the closed lips at sufficient pressure to cause the lips to open during use to allow the fluid to flow towards the end of the sealing lip (the pressure fluid introduced in port 5, that is connected to an annular chamber 14, which finally communicates with the space to permit the lips to disengage and fluid to be released by the nozzle structure formed by the lips), the shield restricts material to pass the shield and into the space (this is the case when the shield is contacting the tube) and injecting fluid under pressure (fluid injected into space 10 via 14 and via 5) into a space between the lip and the shield to exit space by passing between the lip end and an end of the shield.

The sealing lip (7) having a first side (first side having a spring on that side) and a second side (opposite side of the first side), the lip seal having a shield (shield 6) coextensive with the sealing lip except for the lip end on the first side (this is the case since the lip end is under the shield 6) thereof to protect the sealing lip and to define a space with the lip. The shield and sealing lip being normally closed together and in contact proximate the lip end (this is the case as seen in the figures, applicants argument that the document has a drawing error is not persuasive).

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The shield is capable of being deformed by a pressure fluid. The shield and the sealing lip are resilient (both are formed of resilient material). The body portion is capable of being received in a housing. The shield and the sealing lip are normally closed together and in contact (figure 1) proximate the lip end of the sealing lip, the pressure of fluid injected into space causing the shield and the lip to open and permit the exit of the fluid (fluid injected into space 10 via 14 and via 5).

The first and second members are annular. The lip seal having an outer body portion from which the lip and the shield extend radially inwardly (both the sealing lip and the shield extend radially from an outer body portion, see figures). The pressure of the fluid injected into the space causing the shield and sealing lip to open and permit the exit of the fluid (the pressure fluid introduced in port 5, that is connected to an annular chamber 14, which finally communicates with the space to permit the lips to disengage and fluid to be released by the nozzle structure formed by the lips). The lip seal and the shield extend radially inward, the lip end (end of lip seal) being at a radially inner extremity of the lip seal.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE 2643769.

DE 2643769 discloses the claimed invention except for the lip seal to be made of reinforced elastomer. It would have been obvious to one having ordinary skill in the art at the

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time the invention was made to have the lip seal to be made of reinforced elastomer, since it has been held to be within the general skill of a worker in the art to select a know material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Furthermore to use an elastomer that is reinforced is well know to one skilled in the art to provide a sealing lip that is more durable or stronger.

Response to Arguments

5. Applicant's arguments filed 2/1/07 have been fully considered but they are not persuasive.

Applicants' argument that the reference of De '769 has a drawing error that the sealing lips should have been drawn without contact is not persuasive because as stated in the specification of the reference the lips do not contact (see paragraph 9 of the translation document provided by applicant).

Applicants' argument that the arrangement of figure 1 of the invention is not the same arrangement disclosed in figures of DE '769 is not persuasive because the applicant has only claimed a sealing lip and no particular arrangement. Furthermore each and every limitations of the apparatus and method are disclosed by DE '769. This argument also applies to the method claim 19.

Applicants' that the rejection of independent claim 1 be withdrawn is not persuasive because this claim has been canceled.

Applicants' argument that one skilled in the art would not consider seawater to be abrasive is no persuasive because seawater contains salt, debris and etc., which make it an abrasive environment.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP

April 15, 2007

A handwritten signature in black ink, appearing to read "Vishal Patel". The signature is stylized with a large, sweeping "V" and a cursive "Patel".

Vishal Patel
Patent Examiner
Tech. Center 3600